

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A blood glucose monitoring system, comprising:

a. a blood glucose monitor for monitoring a blood glucose level and for producing digitally encoded blood glucose level signals representative of said blood glucose level;

b. a programmable microprocessor-based portable unit that is separate from the blood glucose monitor, said programmable microprocessor-based portable unit including 1) a video display for displaying information, said video display configured to display graphic and multi-line alphanumeric information, 2) a plurality of switches operable for interactively controlling said programmable microprocessor-based portable unit and for manipulating the information displayed on said video display, and 3) a circuit coupled to said plurality of switches for generating video signals in response to the operation of the plurality of switches;

c. a digital data storage medium, the medium

A. readable by said programmable microprocessor-based portable unit; and

B. tangibly embodying therein a program of instructions executable by said programmable microprocessor-based portable unit, said program of instructions including instructions for signal processing in response to signals generated based upon said digitally encoded blood glucose level signals and further for

signal processing of insulin dosage data and detecting a need for
a change in insulin dosage;

d. a signal interface connected in signal communication
with said programmable microprocessor-based portable unit and said
blood glucose monitor for coupling said digitally encoded blood
glucose level signals supplied by said blood glucose monitor to
said programmable microprocessor-based portable unit; and

e. signal processing means connected in signal
communication with said signal interface for performing signal
processing functions in accordance with said program of
instructions.

2. (ORIGINAL) The system of claim 1, wherein said
microprocessor-based portable unit is a palm-top computer.

3. (ORIGINAL) The system of claim 1, the blood glucose
monitor for receiving a test strip including a reagent impregnated
portion having blood applied thereto.

4. (ORIGINAL) The system of claim 3, the program of
instructions including instructions for monitoring whether a
sufficient amount of blood has been applied to said reagent
impregnated portion of the test strip.

5. (CURRENTLY AMENDED) The system of claim 4, the
program of instructions further including instructions for

monitoring whether said test strip is properly inserted into the blood glucose monitor.

6. (CURRENTLY AMENDED) The system of claim 3, the program of instructions further including instructions for monitoring whether said test strip is properly inserted into the blood glucose monitor.

7. (ORIGINAL) The system of claim 3, the program of instructions further including instructions for performing a test sequence to confirm that the system is operating properly.

8. (ORIGINAL) The system of claim 1, at least a component of said signal interface being connectable with a second device, other than said blood glucose monitor, in signal communication with said programmable microprocessor-based portable unit for coupling further signals supplied by said second device to said programmable microprocessor-based portable unit.

9. (PREVIOUSLY PRESENTED) The system of claim 1, wherein said programmable microprocessor-based portable unit further comprises an interactive interface.

10. (CURRENTLY AMENDED) The system of claim 9, wherein said programmable microprocessor-based ~~interactive~~ portable unit is a palm-top computer.

11. (PREVIOUSLY PRESENTED) The system of claim 9, the blood glucose monitor for receiving a test strip including a reagent impregnated portion having blood applied thereto.

12. (ORIGINAL) The system of claim 11, the program of instructions including instructions for monitoring whether a sufficient amount of blood has been applied to said reagent impregnated portion of the test strip.

13. (CURRENTLY AMENDED) The system of claim 12, the program of instructions further including instructions for monitoring whether said test strip is properly inserted into the blood glucose monitor.

14. (CURRENTLY AMENDED) The system of claim 11, the program of instructions further including instructions for monitoring whether said test strip is properly inserted into the blood glucose monitor.

15. (ORIGINAL) The system of claim 11, the program of instructions further including instructions for performing a test sequence to confirm that the system is operating properly.

16. (CURRENTLY AMENDED) The system of claim 9, at least a component of said signal interface being connectable with a second device, other than said blood glucose monitor, in signal

communication with said programmable microprocessor-based
5 ~~interactive~~ portable unit for coupling further signals supplied by
said second device to said programmable microprocessor-based
~~interactive~~ portable unit.

17. (CURRENTLY AMENDED) A method of performing diabetes
self-care with a system of integrated electronic devices,
comprising:

powering a ~~portable~~ blood glucose monitor with one or
5 more batteries;

receiving an amount of blood sufficient for a blood
glucose monitor to run a blood glucose test sequence;

controlling the blood glucose test sequence;

computing a blood glucose level;

10 signal coupling the blood glucose monitor to a portable
microprocessor-based electronic device via a first data port,
wherein said portable microprocessor-based electronic device is
separate from the blood glucose monitor and includes 1) a video
display for displaying information, said video display configured
15 to display graphic and multi-line alphanumeric information, 2) a
plurality of switches operable for interactively controlling said
portable microprocessor-based electronic device and for
manipulating the information displayed on said video display, and
3) a circuit coupled to said plurality of switches for generating
20 video signals in response to the operation of the plurality of
switches;

transmitting blood glucose test results from said blood glucose monitor to said portable microprocessor-based electronic device;

25 running program instructions stored in a memory of the portable microprocessor-based electronic device for performing analysis of the blood glucose test results, signal processing of insulin dosage data, and detecting a need for a change in insulin dosage; and

30 recording the blood glucose test results and the insulin dosage data information in said memory of the portable microprocessor-based electronic device, said memory also containing programming for establishing a data protocol that allows digital data signal processing, and for performing said analysis of blood
35 glucose.

18. (CURRENTLY AMENDED) The method of claim 17, the receiving including:

 inserting a test strip into a receptacle of the blood glucose monitor; and

5 applying a drop of blood to the test strip.

19. (PREVIOUSLY PRESENTED) The method of claim 17, further comprising displaying the blood glucose level on said video display.

20. (CURRENTLY AMENDED) The method of claim 17, wherein said portable, microprocessor-based electronic device comprises a palm-top computer.

21. (ORIGINAL) The method of claim 17, the receiving comprising receiving a test strip including a reagent impregnated portion having blood applied thereto.

22. (ORIGINAL) The method of claim 21, the controlling comprising monitoring whether a sufficient amount of blood has been applied to said reagent impregnated portion of the test strip.

23. (CURRENTLY AMENDED) The method of claim 22, the controlling further comprising monitoring whether said test strip is properly inserted into the blood glucose monitor.

24. (CURRENTLY AMENDED) The method of claim 21, the controlling comprising monitoring whether said test strip is properly inserted into the blood glucose monitor.

25. (ORIGINAL) The method of claim 17, the controlling comprising performing a test sequence to confirm that the system is operating properly.

26. (PREVIOUSLY PRESENTED) The method of claim 17, further comprising:

powering a second device;

signal coupling the second device to said portable
5 microprocessor-based electronic device; and

transmitting signals from said second device to said
portable microprocessor-based electronic device.

27. (PREVIOUSLY PRESENTED) The method of claim 17,
wherein said portable microprocessor-based electronic device
further comprises an interactive interface and said plurality of
switches includes a pair of spaced-apart push button switches and
5 another pair of switches.

28. (CURRENTLY AMENDED) A blood glucose monitoring
system, comprising:

a. a blood glucose monitor for monitoring a blood
glucose level and for producing digitally encoded blood glucose
5 level signals representative of said blood glucose level;

b. a programmable microprocessor-based portable unit
that is separate from the blood glucose monitor, said programmable
microprocessor-based portable unit including 1) a video display for
displaying information, said video display configured to display
10 graphic and multi-line alphanumeric information, 2) a plurality of
switches operable for interactively controlling said programmable
microprocessor-based portable unit and for manipulating the
information displayed on said video display, and 3) a circuit

coupled to said plurality of switches for generating video signals
15 in response to the operation of the plurality of switches;

c. digital data storage media tangibly embodying
therein processor-executable program instructions for signal
processing in response to signals based upon said digitally encoded
blood glucose level signals and further for signal processing of
20 insulin dosage data and detecting a need for a change in insulin
dosage and further for performing a test sequence to confirm that
the system is operating properly;

d. a signal interface connected in signal communication
with said programmable microprocessor-based portable unit and said
25 blood glucose monitor for coupling said digitally encoded ~~health~~
blood glucose level signals supplied by said blood glucose monitor
to said programmable microprocessor-based portable unit; and

e. signal processing means connected in signal
communication with said signal interface for performing signal
30 processing functions in accordance with said program of
instructions.

29. (PREVIOUSLY PRESENTED) The system of claim 28, the
blood glucose monitor for receiving a test strip including a
reagent impregnated portion having blood applied thereto.

30. (PREVIOUSLY PRESENTED) The system of claim 29, the
program of instructions including instructions further for

monitoring whether a sufficient amount of blood has been applied to said reagent impregnated portion of the test strip.

31. (CURRENTLY AMENDED) The system of claim 29, the program of instructions further including instructions for monitoring whether said test strip is properly inserted into the blood glucose monitor.

32. (PREVIOUSLY PRESENTED) The system of claim 28, wherein said microprocessor-based portable unit is a palm-top computer.

33. (PREVIOUSLY PRESENTED) The system of claim 28, at least a component of said signal interface being connectable with a second device, other than said blood glucose monitor, in signal communication with said programmable microprocessor-based portable unit for coupling further signals supplied by said second device to said programmable microprocessor-based portable unit.

34. (PREVIOUSLY PRESENTED) The system of claim 28, wherein said programmable microprocessor-based portable unit further comprises an interactive interface.

35. (CURRENTLY AMENDED) The system of claim 34, wherein said programmable microprocessor-based ~~interactive~~ portable unit is a palm-top computer.

36. (PREVIOUSLY PRESENTED) The system of claim 34, the blood glucose monitor for receiving a test strip including a reagent impregnated portion having blood applied thereto.

37. (PREVIOUSLY PRESENTED) The system of claim 36, the program of instructions including instructions for monitoring whether a sufficient amount of blood has been applied to said reagent impregnated portion of the test strip.

38. (CURRENTLY AMENDED) The system of claim 36, the program of instructions further including instructions for monitoring whether said test strip is properly inserted into the blood glucose monitor.

39. (CURRENTLY AMENDED) The system of claim 34, at least a component of said signal interface being connectable with a second device, other than said blood glucose monitor, in signal communication with said programmable microprocessor-based ~~interactive~~ portable unit for coupling further signals supplied by said second device to said programmable microprocessor-based ~~interactive~~ portable unit.

40. (CURRENTLY AMENDED) A system of interconnected devices for performing diabetes self-care, comprising:

(a) a blood glucose monitor, including:

(i) a receptacle for receiving an amount of blood
5 sufficient for the blood glucose monitor to run a blood glucose
test sequence;

(ii) processing circuitry for controlling the a
blood glucose test sequence and computing a blood glucose level,

(iii) a battery compartment for holding a battery
10 for powering the blood glucose monitor, and

(iv) a first data port for signal coupling to
another electronic device; and

(b) a portable microprocessor-based device that is
separate from the blood glucose monitor and signal coupled with the
15 blood glucose monitor, including:

(i) a second data port for signal coupling with the
first data port and receiving blood glucose test results from said
blood glucose monitor,

(ii) a microprocessor that runs according to program
20 instructions stored in a first memory for performing analysis of
the blood glucose test results, signal processing of insulin dosage
data, and detecting a need for a change in insulin dosage,

(iii) a second memory for recording the recorded
blood glucose test results and insulin dosage information therein,
25 and for containing programming for establishing a data protocol
that allows digital data signal processing, and for performing
analysis of the blood glucose test results,

(iv) a video display for displaying information,
said video display configured to display graphic and multi-line
alphanumeric information,

(v) a plurality of switches operable for
interactively controlling said portable microprocessor-based device
and for manipulating the information displayed on said video
display, and

(vi) a circuit coupled to said plurality of switches
for generating video signals in response to the operation of the
plurality of switches.

41. (PREVIOUSLY PRESENTED) The system of interconnected
devices of claim 40, wherein said receptacle is for receiving a
test strip upon which a drop of blood is applied.

42. (PREVIOUSLY PRESENTED) The system of interconnected
devices of claim 40, the blood glucose monitor further comprising
a display for displaying the blood glucose level.

43. (PREVIOUSLY PRESENTED) The system of interconnected
devices of claim 40, wherein said microprocessor-based portable
unit is a palm-top computer.

44. (PREVIOUSLY PRESENTED) The system of interconnected
devices of claim 40, the blood glucose monitor for receiving a test

strip including a reagent impregnated portion having blood applied thereto.

45. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 44, the program of instructions including instructions for monitoring whether a sufficient amount of blood has been applied to said reagent impregnated portion of the test strip.

46. (CURRENTLY AMENDED) The system of interconnected devices of claim 45, the program of instructions further including instructions for monitoring whether said test strip is properly inserted into the blood glucose monitor.

47. (CURRENTLY AMENDED) The system of interconnected devices of claim 44, the program of instructions further including instructions for monitoring whether said test strip is properly inserted into the blood glucose monitor.

48. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 44, the program of instructions further including instructions for performing a test sequence to confirm that the system is operating properly.

49. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 40, further comprising a second device, other than

said blood glucose monitor, comprising a third data port, said second data port of said portable microprocessor-based device
5 further for signal coupling with the third data port and receiving a signal from said second device.

50. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 40, wherein the portable microprocessor-based device further comprises an interactive interface.

51. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 50, wherein said receptacle is for receiving a test strip upon which a drop of blood is applied.

52. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 50, the blood glucose monitor further comprising a display for displaying the blood glucose level.

53. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 50, wherein said microprocessor-based portable unit is a palm-top computer.

54. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 50, the blood glucose monitor for receiving a test strip including a reagent impregnated portion having blood applied thereto.

55. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 54, the program of instructions including instructions for monitoring whether a sufficient amount of blood has been applied to said reagent impregnated portion of the test strip.

56. (CURRENTLY AMENDED) The system of interconnected devices of claim 55, the program of instructions further including instructions for monitoring whether said test strip is properly inserted into the blood glucose monitor.

57. (CURRENTLY AMENDED) The system of interconnected devices of claim 54, the program of instructions further including instructions for monitoring whether said test strip is properly inserted into the blood glucose monitor.

58. (PREVIOUSLY PRESENTED) The system of interconnected devices of claim 54, the program of instructions further including instructions for performing a test sequence to confirm that the system is operating properly.

59. (PREVIOUSLY PRESENTED) The system of claim 50, further comprising a second device, other than said blood glucose monitor, comprising a third data port, said second data port of said portable microprocessor-based device further for signal

5 coupling with the third data port and receiving a signal from said second device.

60. (PREVIOUSLY PRESENTED) The system of claim 1, wherein said video display has a resolution sufficient to display at least six lines of alphanumeric information, as well as allowing graphical representation of statistical data.